2003 Regional Runway Safety Summit
May 21 & 22, 2003 Miami, Florida
Highlights & Overview

"Summit of the Americas - Bridging the Gap"

FAA Southern Region's 2003 Runway Safety Summit was held in Miami, Florida on May 21 & 22, 2003. The Summit's goal was to enhance the education, training, and safety awareness level for international and domestic pilots, training schools, military and joint use facilities, aviation maintenance technicians, and the general aviation community.

This year's theme "Summit of the Americas - Bridging the Gap" brought together industry and government partners with both national and foreign backgrounds. Runway safety is a concern we all share, and we can "bridge the gap" and make a positive difference by partnering and sharing best practices and lessons learned to find solutions to reduce incursions.

In addition to FAA and airport officials, the 2003 Summit had 132 diverse participants - the Directors General from Bolivia, Peru, Santo Domingo, Costa Rica, Mexico, and Grand Bahamas, as well as representatives from the airlines, the military, and flight schools. The Director of the Office of Runway Safety at Washington Headquarters also attended.

Day One: May 21, 2003

Mr. Bob Hall, Aviation Safety Inspector at the Dallas International Field Office, served as the Summit moderator. He introduced the opening speaker, **Mr. Rick Day**, Southern Region Air Traffic Division Manager, who was the Acting Regional Administrator on behalf of Carolyn Blum, who was unable to attend. Mr. Day thanked everyone for coming and acknowledged all the FAA's Lines of Business who work in partnership with the aviation community to reduce surface incidents and heighten safety awareness.

Mr. Bill Davis, Director of the Office of Runway Safety, Washington, DC, was introduced and welcomed the International guests, particularly the Directors General. Mr. Davis gave a presentation on the Runway Safety Program Global Perspective - The Basics. He spoke about

global standards for Standard Operating Procedures, which will help pilots and controllers better work together. Additionally, standard operating procedures for ground operations will also enhance situational awareness. He also mentioned the efforts that are being taken with new technology along the lines of communications and lights.

Ms. Anna Cohen, Southern Region Runway Safety Program Manager, spoke next and introduced the integrated team, and each role as it pertains to runway safety function on the team. Anna spoke to the group about the region's efforts to educate, train and raise the safety awareness level of international and domestic partners. Ms. Cohen emphasized "how serious we are about runway safety" and the commitment the FAA has made to reduce surface incidents and provide a safe level of operations for the flying public. She encouraged everyone to use the time to share concerns, ideas, recommendations, and solutions.

"Talk Runway Safety" Panel

Mr. Drazen Gardilcic, Acting Manager, FAA Air Traffic International Staff, spoke on the air traffic controllers' perspective for runway safety. He gave an overview of current proposed changes to ICAO standards regarding the use of the English language.

Ms. Marjo Mitsutomi, Professor of Linguistics, the second member of the panel, spoke next of "The Role of English Proficiency in Global Aviation." Ms. Mitsutomi gave excellent examples of words and phrases and how they are pronounced. She said that sometimes the same words can mean something different when said differently or said with an accent. Sometimes it is the culture that makes the tone or understanding of words and phases mean something different to an individual.

The third panel member was **Mr. Felipe Wilke,** Assistant Director Flight Operations for LanChile Airlines. Mr. Wilke spoke of how LanChile Airlines addresses the issue of safety. He covered such areas as recurrent training for pilots and maintenance crews, and stressed the importance of training and clear communications. LanChile Airlines has an active interchanging program with Air Traffic Control (ATC) and how well they work together to ensure familiarization. Mr. Wilke also explained their standard operating procedures for coordinating with ATC.

Keynote Speaker

The keynote speaker on May 21 was **Dr. Kim Cardosi** of the Volpe Center, who works for the DOT/Research and Special Research Administration. She provided a summary of the more serious types of runway incursions. The most frequent occurrences were crossing in front of departing aircraft. An interesting portion was Dr. Cardosi's summary of who intervened to catch the pilot or controller error and thus prevented the incursion from becoming more serious. 76% of the pilot errors that were prevented by someone's awareness can be attributed to the same air traffic controller that was working the aircraft. If the air traffic error was caught in time to prevent a serious event, the same controller who initiated the error caught it most often. But the pilot

himself caught 27% of controller errors in advance. Dr. Cardosi concluded her presentation by elaborating on the ATC factor in the incursion issue, listing these causes and recommendations for prevention:

- distractions
- assumptions
- hearing only what we expected to hear rather than what was really said
- leaving traffic in position longer than 90 seconds
- combining positions of operation
- absence of supervisors
- several procedural changes are recommended both in controller manuals and the FARs
- controller teamwork should be improved
- well trained individuals will make mistakes; poorly trained individuals will make more mistakes

Day Two: May 22, 2003
Facilitated Breakout Sessions

Communications
Including case studies, past incidents and audiovisual tapes

An average of 50 participants attended each breakout session. At the beginning of each session, the participants brainstormed factors that cause runway incursions. The group used actual air traffic control audiotapes, together with graphics, to review two separate incidents. Open discussion was encouraged after viewing each scenario. Factors were determined that could have led to each runway incursion, and discussion continued on what should have or could have been done to prevent the incidents. Below are some of the perceived results of those discussions (but not necessarily the actual factors).

Providence, Rhode Island/Green State Airport/United Airlines (December 6, 1999)

Negative
- Lack of situational awareness.
- Confusion in cockpit.

- Unfamiliar with airport - no diagram - didn't use heading indicators.
- UAL initially gave confusing pilot reports to ATC.
- ATC not aware of situation as it really was - still cleared other aircraft for takeoff.
- ATC could not see with fog - no technology to help (ASDE).
- When UAL started to give good location reports, ATC expected UAL to be where they were directed to be - not where they actually were.

Positive
- Good situational awareness from other aircraft waiting for takeoff (US Airways requested cancellation of takeoff clearance until the UAL situation was resolved).
- Because of environmental conditions, power settings set for takeoff resulted in shorter takeoff distance - this runway incursion did not result in fatalities.

Anchorage, Alaska/Anchorage International Airport - China Air (January 25, 2002)

Negative
- Lack of situational awareness.
- Not familiar with airport - use of diagram.
- Never asked ATC for assistance (progressive taxi).
- Pilots confused with signage - didn't know difference between runway and taxiway signage.
- No visual perception that they (pilots) were on a taxiway - length, width etc.
- ATC didn't realize they were taking off on the taxiway in time.

Positive
- Because of lower temperatures, takeoff power settings allowed the aircraft to rotate before running out of taxiway. Aircraft barely cleared obstacles at the end of the taxiway. No fatalities.

New Technology - U.S. Cockpit Resources

Few questions were posed in the technology session, but there was great interest expressed after each session regarding the technology discussed.

- Airport Surface Detection Equipment - Model X (ASDE-X)
- Automatic Dependent Surveillance - Broadcast (ADS-B)
- Cockpit Display of Traffic Information (CDTI)

Session participants expressed an interest in copies of the presentation, or scheduled future dates for a live presentation to learn more about what technology is available to make aviation users more aware of what's available. Many of the participants were not completely aware of the new, upcoming technologies, and were greatly interested in what the future holds. Also, Air Traffic expressed a concern about future availability of beacon codes for both surface and airborne traffic. *(Note: copies of the power point presentation are available for those with an interest in it.)*

Airport Environment

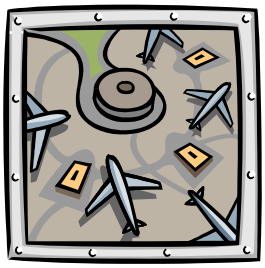
Ground vehicle training - signage/marking/lighting

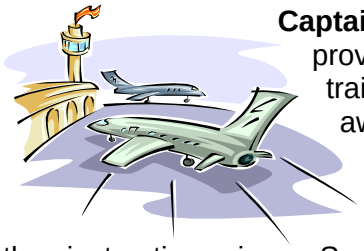
The Airport Environment session included an energetic discussion about airfield visual cues and varying ways of implementing drivers' training for airport users. Here are the major outcomes of the discussion:

- Recurrent drivers training - the conversation surrounding this issue was that one-time training was not enough; the need exists for periodic or annual training.
- Airport tenants usually train their drivers…but who trains the trainer?
- In the event there is no perimeter road, airport managers must identify spots to cross active runways.
- The Runway Safety Team needs to help raise the priority for projects funded by Airport Improvement Program (AIP) funds. Security and safety related projects are currently given the highest priority.
- Airfield drivers training should place emphasis on training for taxiways as well as runways.
- Are the airport managers required to use the training provided by FAA's Airports Division, or can they devise their own?
- What quality control do hand held radios go through to ensure that you have no over modulation? (The general response to this question: you get what you pay for.)
- Radio and television stations generally impact navigational facilities; however, they can also impact voice communications if they are close enough.
- Are all proposals to build "on airport" projects evaluated for communication interference?
- Ft. Lauderdale Executive Airport (FXE) developed a training program especially for police in the FXE area, and is sharing this valuable tool with other Florida airports.

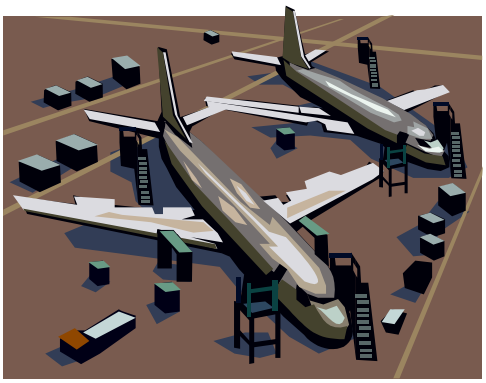
General Session - Summit Wrap Up

Captain Eduardo Chacin, Manager of Safety, Operations and Infrastructure at the International Air Transport Association (IATA), spoke to the group about the FAA-IATA Runway Incursion Prevention Program (RIPP) Awareness, Education and Training tool kit. He recapped the partnership between IATA, Flight Standards, Miami Airport and the Regional Runway Safety Program Office during the development of the tool kit. The CD is undergoing a third revision to enhance ease-of-use and to include new modules such as human factors, communications, ground operations, and airports. Capt. Chacin said that over 150 airlines have received the CD and over 1,500 pilots have been trained, as well as ATC controllers. IATA has gotten numerous requests from the Latin American and Caribbean regions to continue publicity for the CD. IATA will continue to track distribution and training, and coordinate statistics and user feedback with the Regional Runway Safety Program Office.





Captain Andres Fabre, Director of Operations at MasAir Cargo in Mexico, provided favorable feedback about the FAA-IATA RIPP tool kit for training MasAir personnel. Capt. Fabre told the group that safety awareness has increased, minimizing the possibility of involvement in a surface incident, and said that MasAir always use the CD during training. MasAir requires that after each crew acknowledges an ATC clearance in English, someone on the flight deck must repeat the instructions in Spanish to make sure all members of the flight crew fully understand the instructions. This "check and balance" ensures that the crew is paying attention to the clearance and not just methodically repeating back what was said.



The 2003 Runway Safety Summit was a major success!
FAA and the Regional Runway Safety Program greatly appreciate everyone's active participation and commitment to eliminating incursions and surface incidents. Your continued involvement is very valuable.